

## ABSTRACT

Systems and methods for relating network elements to customers in a communications network using an object-oriented relational structure. The present invention is directed to systems and methods for relating network elements to customers in a communications network using an object-oriented relational structure. According to one embodiment, the object-oriented system, for relating network elements to a customer or for relating a customer to the network elements, includes a network element data module containing network element data arranged in a form that can be manipulated using an object-oriented application; a customer data module; and a mapping module in communication with the network element data module and the customer data module for creating an object-oriented model of the network elements. The output of the mapping module comprises a plurality of sub-tree layers wherein each layer represents a layer of abstraction, and wherein a root represents the highest sub-tree layer and the highest level of abstraction and a plurality of unique customer identifiers assigned to network elements that relate the customer to certain network elements.